

GIM INTERNATIONAL INTERVIEWS PROFESSOR MARTIEN MOLENAAR

Go with the Flow Towards Your Targets

The year 2010 will bring many changes to the International Institute for Geo-Information Science and Earth Observation (ITC). On 1st January 2010 ITC joins the University of Twente (UT) as its sixth faculty. The Deed of Conveyance was signed by Professor Dr Ir Martien Molenaar and UT president Dr Anne Flierman during the 59th Dies Natalis on 17th December 2009. Prof. Molenaar also steps down as rector of ITC on 1st January 2010. His successor, Prof. Dr. Ir. Tom Veldkamp of Wageningen University, has a background in agricultural and environmental sciences. In this interview Prof. Molenaar reflects upon a turbulent period culminating in the embedment of ITC in UT.

Could you explain to our readers the main triggers for joining the University of Twente?

The seed of our present embedment was planted in 2002. Since the turn of the millennium the Dutch government, main financier of ITC through the government's Official Development Assistance (ODA) programme, has shown increasing reluctance to support the type of educational institutions ITC belongs to. So ITC faced the need to arrive at closer co-operation, at least at administrative level, with other educational institutes in the Netherlands; of course, at executive level there was already great co-operation, which will continue. So in 2002 UT became ITC's official penman, and in 2006 we signed a declaration of intent to extend co-operation. The embedment in UT greatly clarifies our position as an educational institution within the higher education system in the Netherlands.

Why University of Twente?

UT was a very natural choice, as the university is also located in Enschede, like ITC has its roots in technology and engineering, and shares a history of similar length; ITC is a decade older than UT.

When we interviewed you at the time of your appointment as rector of ITC on 1st January 2001 (see GIM International October 2001) you said, "There is a difference in mission between ITC and normal universities. ITC educates mainly professionals who already have a career with organisations predominantly located in less developed countries." Will the mission change with embedment of ITC in a 'normal university'?

The UT mission differs significantly from that of ITC. However, the integration will not affect our own mission. According to our appointments ITC will enjoy a special position within UT, warranted for the long term through special funding under the ODA umbrella of the Dutch government. ITC will change from being a foundation to a faculty, but neither our name nor policy nor location will change. Our primary focus remains capacity building for organisations in less developed countries and countries in transition.

Okay, these are the consequences for ITC and they would all seem beneficial. How will things work out for UT?

Since the turn of the millennium there has been an increase in the international component of higher education. UT has an ambition to become an international player with strong European exposure. ITC has a lot of international experience, so we can help UT to achieve this ambition. Thus, in addition to the financial aspects, which are important from ITC's point of view, the wish on the part of UT to attract students from other European countries is a boost to joining forces. A second point is that in today's society needs and technology quickly change. As a result, knowledge quickly becomes degraded or outdated. This means that, in the course of a professional career, knowledge and skills become obsolete and professionals need retraining and rejuvenation of knowledge at least every ten years to keep themselves fit for forty years or longer working. Universities have not developed a prominent position in this market, while ITC has a name and fame in educating mid-career professionals and capacity building. UT can benefit a lot from our experiences in this field.

As you said, UT mainly has a European perspective while ITC focuses on developing countries. This would suggest a discrepancy in symbiosis with respect to capacity building...

Today capacity building goes beyond developing countries; all societies need regular improvement in the knowledge and skills of professionals. Permanent capacity development is something which should be part of any highly developed information society. Universities are still concentrating on educating young people while, in my view, the need for retraining professionals is two to three times as great as the need for young professionals. Particularly universities mainly orientated around engineering and natural sciences have not yet got onto this track. Business school summer schools may offer an example. The disciplines of Medicine and Law are also familiar with the phenomenon of ongoing professional development.

ITC focuses especially on diploma courses, MSc diplomas and PhD research. Regular universities usually also offer BSc programmes. Are there plans for such in the future, now that ITC is part of a regular university?

This point has been intensively discussed over the past three years, the time needed to prepare for integration. We are working on embedding part of our courses in other BSc programmes, for example in the format of minors. But I think it is very difficult to raise interest

in geomatics among high-school pupils. Somehow people must have faced the need for geo-information in a professional setting. For example, over the years the background of the vast majority of ITC students has deviated from mapping. They are hydrologists, urban planners, civil engineers, geologists and so on, and they want to deepen their knowledge of geomatics in order to better tackle the problems they face in the course of professional work. They know the issues and have experienced the value of geo-information.

With car navigation systems now ubiquitous and Google Earth at our fingertips, I can't imagine how the curiosity of young people could fail to be aroused regarding the technology behind the externals...

Young people are users and they are interested in what the technology can do for them, not how it works. Of course, some young people are interested in technology. But geomatics is far beyond their scope. And to be honest, making a car-navigation system is not as exciting as designing bridges, cars or aeroplanes. Geomatics is an exciting profession, but it takes time before you 'get it'. In addition, I think high-school pupils give geomatics the cold shoulder because they have not heard of the profession, mainly thanks to the way they get educated at secondary level. Mid-career people have experienced the context in which the geomatics discipline is crucial. The background of students does not matter so much; it is the outflow of universities that counts, not the influx.

What was the main bottleneck experienced in bringing together the two institutions?

This has definitely been difference in culture and mission. Our focus has always been on co-operation with organisations in less developed countries, both through capacity building and by carrying out projects in support of development initiatives. We reserved a lot of time for arriving at mutual understanding of our cultures. The result is that we will continue our focus and mission. We will continue carrying out capacity building and projects in less developed countries.

I can imagine that the preparatory period for the move to UT bred some internal reluctance, even serious resistance.

Change is always associated with emotional response, and the situation with ITC is no exception. During get-togethers called 'Meet the Rector', held about every three months, I tried to explain to our staff that the world around us was in continual and rapid flux and that we had to adapt to these changes or perish. Preparations for the move coincided with generation change; many staff members who had sculpted ITC and done splendid work were approaching the age of retirement. New staff members well understood that one could stick to the ITC as it once was. I also organised off-site meetings with the board of employees at which I explained the situation and my vision regarding how to react. A metaphor I often used to explain the need for change was: "You can row against the stream of a river to stay where you are. Not only is that exhausting, but it is better to follow the stream such that you arrive approximately at the location which is best for you in the changing landscape." Most of our staff is convinced that we are an institute to be proud of.

What are the achievements you are most proud of?

Definitely this is the professionalization of our education. It is natural that as a discipline develops an educational institution such as ITC anticipates these developments by introducing new MSc courses. But in the course of time there occurs loss of coherence. When I started out as rector in January 2001, ITC had sixteen loosely coupled MSc programmes. I restructured the MSc courses into a consistent programme. A second achievement has been strengthening of our network by intensifying relationships and co-operation with international organisations such as GEOS and ESA. Last but not least, I would like to mention the improvement in ITC productivity. September this year saw around 170 people embark on our MSc programmes, and 130 people involved in our PhD research programme. Overall, the average age of our students is steadily decreasing. This is due to our working with about fifteen universities all around the world with which we develop joint programmes. From these universities a growing flow of young people, not necessarily in mid-career, are moving towards ITC as MSc students.